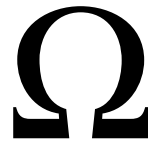


Telenetics



OMEGA™

Communications Interface Cabinet

Antenna Installation Manual

0049-0706-004

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25111 Arctic Ocean
Lake Forest, California 92630
Tel: (949) 455-4000
Fax: (949) 455-4010

Preface

This Guide describes how to install the elevated-feed and Yagi antennas for use with the Telenetics OMEGA™ Communications Interface Cabinet.

- ❖ For information about elevated-feed antenna, see Chapter 1.
- ❖ For information about the Yagi antenna, see Chapter 2.

Safety Precautions

Please observe the following precautions when installing the antenna:

- ❖ The antennas are electrical conductors. Contact with power lines can result in death, or serious injuries. Therefore, do not install the antenna where there is any possibility of contact with power cables or service drop to buildings, or during electrical storms. In addition, never place the antenna close to power lines or utility wires.
- ❖ The antenna supporting mast and/or tower should not be close to any power lines during installation or removal.
- ❖ Follow the guidelines for antenna installation recommended by the U.S. consumer product safety commission.
- ❖ Install the antenna so it is at least 6 feet away from adults, children, and animals to prevent exposure to high levels of electromagnetic field radiation.
- ❖ Never operate the antenna near RF-sensitive medical devices such as pacemakers.
- ❖ Keep the feedline of the antenna away from utility lines.
- ❖ Mount the antenna high enough so that it is out of reach of adults and children. The end of the elements can cause eye injuries and serious RF burns.
- ❖ Be sure the mast and rotator are strong enough to support the antenna's weight and wind load of approximately 2 square feet.

Grounding Considerations

Although the antennas are designed to operate efficiently without the requirement of an earth ground, safety grounding must still be provided to protect equipment, property and persons from the hazards of lightning strikes and other weather related electrical discharges.

An effective method of protecting station equipment is to install an in-line coaxial lightning arrester with a heavy duty ground wire to a suitable earth ground, or a safety switching system as part of the basic ham station equipment.

Technical Assistance

If you have any problem with this antenna, you can call Telenetics between 8:00 am and 5:00 pm Pacific Time at (949) 455-4000 Monday through Friday. We recommend that you have your antenna handy, so you can answer any questions the technicians may ask.

You can also send questions by mail or fax:

Mailing Address: Telenetics Corporation
25111 Arctic Ocean
Lake Forest, California 92630
Fax: (949) 455-4010

Include a complete description of your problem, an explanation of how you are using your antenna, and a complete description of your OMEGA application.

We also encourage you to visit our website at www.Telenetics.com, where you'll find the latest information about our state-of-the-art communication solutions.

Chapter 1

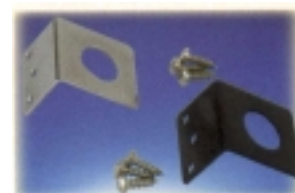
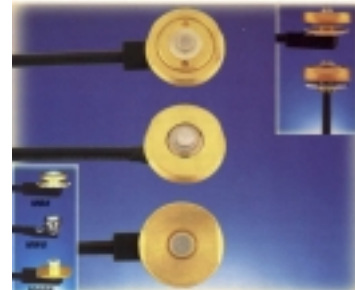
Elevated-Feed Antenna

The OMEGA elevated-feed antenna is a very compact yet high-performance omni-directional antenna. It is ideally suited for applications where high gain and wide coverage is desired.

Parts List

As you unpack your antenna you should find the following items:

- ❖ One elevated feed antenna
- ❖ One bag containing the following mounting hardware
 - A cable with a round, gold antenna mount at one end
 - Two “L” brackets and six screws for wall-mounting the antenna
 - Two fasteners for pole-mounting the antenna
- ❖ This manual



If any of these items are missing or damaged, please contact Telenetics immediately.

Choosing a Location

For best performance, mount the antenna as high as possible, in a clear location above or away from buildings, feed lines, utility wires, and other antennas. Your expertise and particular circumstances will determine the final mounting method.

Assembling the Antenna

Use the following procedure to assemble the elevated-feed antenna:

1. *Wall installations:* Secure either of the supplied “L” brackets to the wall.
Pole installations: Install the either of the supplied fasteners onto a pole.
2. Mount and screw the antenna onto the round, gold antenna mount.
3. To prevent moisture from entering the OMEGA, route the antenna cable through the conduit hole at the bottom of the OMEGA.
4. Open the OMEGA enclosure and connect the antenna cable to the OMEGA transceiver.

Figure 1 shows a completed elevated-feed antenna assembly mounted on a wall.



Figure 1. Completed Elevated-Feed Antenna Assembly

Chapter 2

Yagi Antenna

The OMEGA Yagi antenna is a National Bureau of Standards (NBS)-style antenna that provides optimum gain and front-to-back ratio. These capabilities make it ideal for use with your OMEGA Communications Interface Cabinet.

Parts List

Your Yagi antenna parts and hardware are stainless steel, aluminum, or non-corrosive material. As you unpack your antenna you should find the following items:

- ❖ One Yagi antenna and mast
- ❖ One cable for connecting the antenna to the OMEGA
- ❖ One bag containing the following mounting hardware:
 - One brass clamp
 - One “L” bracket
 - Two flat washers
 - Two lock washers
 - Two nuts
- ❖ This manual

If any of these items are missing or damaged, please contact Telenetics immediately.

Choosing a Location

The Yagi antenna can only be mounted so the antenna is oriented horizontally with the elements oriented vertically. For best performance, mount the antenna as high as possible, in a clear location above or away from buildings, feed lines, utility wires, and other antennas. Your expertise and particular circumstances will determine the final mounting method.

The antenna is directional. Therefore orient the antenna so the radio signal is pointed toward the source with which you want to communicate.

Installing the Antenna

Use the following procedure to assemble the Yagi antenna:

1. Mount the mast onto a wall using the supplied bracket and screws.
2. Mount the brass clamp, as shown in Figure 2.



Figure 2. Mounting the Brass Clamp

3. Align the antenna with the brass clamp.
4. Use the two supplied flat washers, lock washers, and screws to secure the antenna to the brass connector, as shown in Figure 3.



Figure 3. Completed Antenna Assembly

5. To prevent moisture from entering the OMEGA, route the antenna cable through the conduit hole at the bottom of the OMEGA.
6. Open the OMEGA enclosure and connect the antenna cable to the OMEGA transceiver.

Figure 4 shows a completed installation.

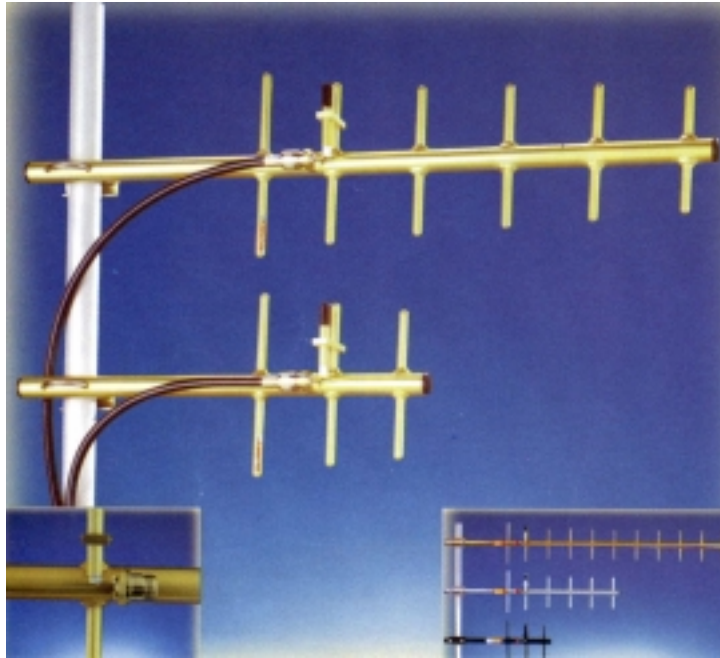


Figure 4. Wall-Mounted Yagi Antenna